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## **I. Smith Shields Old Growth Habitat Concerns**

It is rather telling that the Forest Service readily admits in this case that “the analysis [in Smith Shields] is easily misunderstood,” FS Brf., p. 21, and even acknowledges that “it is easy to understand why [Plaintiffs] are confused,” FS Brf., p. 20. NEPA regulations repeatedly emphasize the importance of informing the public in the decision making process with “clear” information and full disclosure “supported by evidence that the agencies have made the necessary environmental analyses.” 40 C.F.R. §§1500.2(b), 1502.1 (“concise, clear and to the point”), 1502.8 (“the public can readily understand”; “clear prose”), 1502.10 (“good analysis and clear presentation”). The Chief of the Forest Service is directed under NEPA to “[d]evelop procedures to ensure the fullest practicable provision of timely public information *and understanding* of federal plans and programs with environmental impact in order to obtain the views of interested parties.” (emph. added) Exec. Ord. 11514 (Mar. 5, 1970, at 35 FR 4247, 3 CFR, 1966-1970, Comp., p. 902).

This raises the general issue of whether or not a “full and fair discussion” of potential impacts to, e.g., elk, moose, and old growth habitat is really possible when the Forest Service’s analysis, by its own admission, is so easily misunderstood that - again, according to the federal defendants - even a Ph.D. biologist who worked for years with the national forest in question<sup>1</sup> has apparently been misled by the

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<sup>1</sup> Dr. Johnson even authored the “Old Growth/Forest Plan Monitoring Project” for the Gallatin under the old forest plan. Fourth Johnson Dec., ¶ 1.

information and analysis presented in support of a decision to forego more detailed analysis. *NEC v. Krueger*, 946 F.Supp.2d 1060, 1093 (D. Mont. 2013). If it is “easy to understand” why Dr. Johnson (and, by necessary implication, the public at large) is confused by the “easily misunderstood” analysis in Smith Shields, then either the Chief has failed in his mission to adopt procedures that foster understanding with timely information, or the other federal defendants here have simply failed to properly implement those procedures.

Take, as just one example, the Forest Service’s insistence that the long-established practice of presenting project area maps that delineate the different structural stages of forested habitats, including old growth, is no longer necessary in order to fulfill the full and fair disclosure requirements of NEPA. Fed.Brf., p. 44. The Forest Service brushes this complaint aside by noting unequivocally that “[t]he Smith Shields project proposes no harvest or treatment in old growth [habitat].” *Id.* However, given the lack of any such maps, neither the public nor the courts are in a position to challenge such a blanket statement. Except that this project just happens to be an effective continuation of a recently completed project in the same area, the Smith Creek project that was formerly litigated in this court, and the Smith Creek project preceded the sweeping forest plan amendments at issue in this case. As the plaintiffs raise the issue of cumulative effects, the Forest Service included the EA and other supporting documents from Smith Creek in the record filed with the Court for the decision challenged in this case.

Coincidentally, the EA for Smith Creek filed with the Court did not include the stratification maps of structural stages that are referenced in its table of contents, and at Plaintiffs' request the Forest Service graciously supplemented the record to include same. But even then, the original map in question was color-coded, and the copy submitted to the Court is black-and-white. See: ARSS-Supp-708.<sup>2</sup> This prompted Plaintiffs' counsel to search and locate the same map on line<sup>3</sup> - in color - and after having had a chance to examine it in the context of the challenged proposals, to request an expert in mapping to overlay the cutting units for Smith Shields onto the structural stages map. See: Haskins Dec.

Now Plaintiffs are even *more* confused because, according to the color-coded USFS "Successional Stages Smith Creek Vegetation" map (December 2006), which clearly demarcates old growth blocks with a dark blue color-code, cutting unit 1b of the challenged Smith Shields project (113 acres slated for "salvage/sanitation/thin," ARSS-14437) is almost *entirely* old-growth habitat, with part of the old growth block extending into cutting unit 1l as well. And another block of old-growth habitat falls within cutting unit 19b - slated to be clearcut (ARSS-14438). But, consistent with unqualified representations to this court, the public was assured by the project silviculturist that "no treatments are proposed in current old growth." ARSS-1885.

As everyone knows - and thus the court can take judicial notice - old-growth

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<sup>2</sup> To avoid confusion, the Administrative Records are cited as "ARSS" for the Smith Shields project record, and "ARCU" for the Clean-up Amendment, with references to the Bates page numbers.

<sup>3</sup> Available at: [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5136993.jpg](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5136993.jpg) (retrieved October 27, 2017).

habitat does not get younger over time. So naturally, Plaintiffs' counsel was quite curious about what could have happened to these stands since they were coded as old growth in 2006. Searching deeper into the record, there are some photos of unit 1b (and 1l) taken as part of the lynx cover analysis. ARSS-2290, 2297. And there are some timber stand exam sheets as well, ARSS-1531 *et seq.*, though the nomenclature utilized on these exam sheets requires some expertise to decipher. Thus, counsel requested that Dr. Johnson look at the exam sheets and the photos to determine what could possibly have changed since 2006 that would explain why these stands are no longer considered "current old growth."

While for unit 19b Plaintiffs have only the map from 2006 delineating old-growth habitat to be clearcut, for unit 1b it certainly would appear from the map, the photos, and the stand exams that this large block still meets the accepted Region One definition for (lodgepole pine) old growth habitat. Dr. Johnson, with directly relevant experience monitoring old-growth habitat for the Gallatin NF pursuant to a project she designed while employed there (*supra.*, fn. 1), reaches the same conclusion. Fourth Johnson Dec., ¶¶ 17-19. In fact, prompted by this discovery in the record, she goes on to conclude from an examination of timber stand data sheets that units 1l, 19b, and 19f appear to meet the Region One old growth criteria, are currently functioning as old-growth habitat, and/or are at least very close to qualifying as old-growth habitat.

Cutting unit 1l, for which there are some photos at ARSS-2297, includes

lodgepole pine trees up to the minimum size requirement set forth in the Region One old growth criteria (Ibid., ¶ 15) and, as indicated above, includes a portion of the old growth block delineated on the 2006 structural stage map as dominating cutting unit 1b. Haskins Dec. The survey sheets for cutting unit 19b are indicative of stands that are very close to ripening into old-growth habitat, Fourth Johnson Dec. ¶ 13, and there is a swath of old growth running north-to-south on the eastern edge of that unit that is delineated on the 2006 map.<sup>4</sup> Haskins Dec. As unit 19b is slated to be clear cut, the old growth stand indicated on the map and the stands documented in the exam sheets would be eliminated. Finally, cutting unit 19f does not show up as old growth on the 2006 map, but clearly appears to qualify as Region One old growth nonetheless, with large Douglas firs crowding out the lodgepole pine trees that are starting to die out, indicative of a natural succession from one old growth type to another. Fourth Johnson Dec. ¶ 14.

In addition to the detailed explanations provided by Dr. Johnson in her declaration, the Court may find it instructive to also refer to the photograph of Stand 32b in Figure 14 of the Proposed Action (SSAR-394), included as part of the Smith Shields Scoping Notice, and compare that photo with the photos from cutting unit 1b included in Dr. Johnson's declaration at ¶ 18. While these stands appear to be visually indistinguishable, Stand 32b was not included in the project because it was determined to include "components characteristic of an old growth stand."

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<sup>4</sup> It is unclear if the stand exams are within the designated old growth block.



SSAR-393. Indeed, even the timber stand data sheet for unit 1b concedes that it “could meet” the criteria for ponderosa pine old growth, but that such criteria were not applied. ARSS-1532. The protection of S32b because it has components characteristic of an old growth stand compared to the sacrifice of unit 1b for undisclosed reasons is clear evidence of capricious decision making - separate and apart from the failure to disclose the reasoning in the record for excluding what has been designated as old growth, and the misrepresentations to the public, which also violates NEPA and the Farm Bill.

The Forest Service’s only defense to Plaintiffs’ argument that they have done nothing to demonstrate that they are maximizing the retention of old growth and large trees consistent with the purposes of the Farm Bill seems to be to point out to the Court that they cut-and-pasted the statutory language creating the obligation into their decision, and so presumably we should just trust them to do the right thing in implementing that decision with the logger, rather than build the requirements into the design of the project. But the clear evidence presented to the Court in the Haskins and Fourth Johnson Declaration undermines that trust, and does not appear to be consistent with the clear statutory intention. In order to demonstrate for the Court what it is that Plaintiff would have the Forest Service do to demonstrate that they are in compliance with the statutory directive, Plaintiffs are herewith submitting, as an illustrative exhibit only, a portion of the Forest Service’s documentation from a Farm Bill CE project in the Helena-Lewis & Clark NF that

will be before the Court in a related case (17-cv-0153-DWM). Exhibit (attached hereto). As the Court can see from this exhibit, the Moose Creek Project also occurs in a lodgepole pine dominated forest. Ex., p. 2. By comparison to the Gallatin NF's perfunctory inclusion of the statutory language in their decision documents - which they contend "promotes" (rather than maximizes) retention, Fed.Brf., p. 29 - the Forest Service in Moose Creek went to considerable lengths to demonstrate compliance with the Congressional directive to maximize the retention of old growth and large trees. For example, after referencing their effort to conduct extensive field surveys to identify both existing and potential old growth (that which may ripen into old growth in the next 50 years), the Forest Service:

...took great care to avoid proposing activities that might diminish the existing OG resource in the MooseVeg project area. Although we did not survey every timber stand contained within the MooseVeg project boundary, we did survey wherever project-related management activities were proposed. Indeed, proposed activity unit boundaries were redrawn on multiple occasions specifically to avoid diminishing the OG resource. In short, we may not know where every 20+ acre tract of OG is within the project area boundary, but we certainly know where it isn't.

Exhibit, at p. 3. And they did so in a way that is conducive of full and fair disclosure. They even went to the trouble to create *a new map* of all the old growth in the project area (Ex-6), whereas the Gallatin seems to have gone to great lengths to avoid providing an *existing* map of old growth in the project area that happens to reveal that they misrepresented the old growth situation for Smith Shields to the public and to this Court. While the Forest Service may well continue to assert that

Plaintiffs are “confused” by the results of the detective work they have been required to undertake into the record as a result of their failure to even discuss the issue in the NEPA documentation for Smith Shields, at the very least this demonstrates that the Forest Service in this case has failed to provide “timely public information and understanding” of their plans to log Smith Shields, as just how “the analysis [in Smith Shields] is easily misunderstood” by members of the public, including their own former expert on old growth habitat monitoring, *supra*. This falls far short of NEPA’s disclosure and “full and fair discussion” standards, and thus requires the Court to set the project decision aside. *NEC v. Krueger*, *supra*.

As to the change in the old growth standard in the forest plan amendment from total acres to forested acres, the Forest Service has offered no explanation of what the “mountain range scale” is in answering concerns about adequate distribution of old-growth habitat. Species viability has always been a two-pronged question: is there adequate habitat, and is it well distributed? And that concern has always been heightened with regard to old-growth obligates, due to the depletion of old-growth habitat far below the natural conditions that pre-dated passage of NFMA and the development of forest plans. Courts are well versed in such concerns, as litigation has long focused on species associated with old growth. See, e.g.: *Idaho Sporting Congress v. Rittenhouse*, 305 F.3d 957 (9th Cir. 2002), at 961-962 (“In order to maintain viable populations of wildlife, ‘habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well

distributed so that those individuals can interact with others in the planning area.’ [quoting former planning rule]”). The Forest Service effectively eliminated any distribution requirement for old growth in the challenged amendment to the Gallatin forest plan by changing the unit of measurement from timber compartments, required to be analyzed when projects are proposed, to mountain ranges, and then relying on extrapolation of survey plot data that is not capable of being mapped.

“An agency’s decision not to prepare an EIS will be considered unreasonable if the agency fails to supply a convincing statement of reasons why potential effects are insignificant.” *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1211 (9th Cir. 1998). This change in the distribution requirement for old-growth habitat set forth in the original forest plan for the Gallatin is a significant issue for which the Court will find no explanation in the record, let alone a “convincing statement of reasons” why changing the scale of measurement from the timber compartment, where a project is actually proposed to be implemented, to measurement “somewhere else in the forest we can’t show you on a map,” is not a significant environmental concern. This case is a prime example of why the public has good reason to be concerned over such a change. Were it not for the mapping of structural stages available for part of the project area due to a recent project approved under the prior forest plan standard, Plaintiffs would have no practical way of confirming or disproving the Forest Service assurances that no old growth would

be treated by the proposed project.

The Forest Service cites to no science in the record demonstrating that providing minimum levels of old-growth habitat at the mountain range scale meets the needs of species for well-distributed habitat. Instead, they attempt to dismiss the concern by pointing out that, according to extrapolation from forest inventory data collected for random, quarter-acre plots, there is 17% old growth versus the 10% minimum required under the amended standard. Even apart from the change in the distribution requirement, however, NEC questioned the adequacy of the 10% minimum, suggesting instead that the Forest Service consider an old growth standard of 20-25%, consistent with best science. The Forest Service's preliminary response was that "[t]his alternative was not given detailed study because the Forest Service is unaware of any scientific literature that suggests 20% to 25% of an area should be retained in 'old growth' and the commenter did not provide any scientific basis to support this recommendation." ARCU-3246. 'Plaintiff NEC, dismayed at the professed scientific ignorance of the Forest Service on a matter of such importance, followed up by e-mail with the Gallatin's biologist, specifying that the best science supporting a 20-25% old growth retention requirement was *Reynolds et al.* for goshawks (20%), *Bull and Holthausen* for pileated woodpeckers (25%), and "Montana Bird Conservation Plan, Version 1.0, Jan. 2000" more generally (20-25%). ARCU-3106. The Forest Service nonetheless refused to consider such an alternative old growth in their final decision, offered no explanation of their own scientific

rationale for retaining the 10% standard, and now seeks to dismiss any concerns over distribution of old growth by pointing to an estimated 17% old growth level as more than adequate under the plan.

Once again, this highlights the need for an EIS to fully and fairly explore the potential impacts of changing the old growth standard in a manner that eliminates the need to map out distribution of habitat, or to disclose levels of habitat at the scale of a proposed project. An EIS, with the concomitant obligation of the Forest Service to respond to scientific inquiries and cited studies (versus the abbreviated process of an EA) would allow for consideration of potential impacts to affected species based upon full and fair disclosure. This need is only heightened by the amendment's elimination of any indicator species for old-growth habitat, which has the effect of allowing the Forest Service to lump impacts to old growth into a broader analysis of younger aged ("mature") forest. Once the Forest Service disavows any connection between forest plan old growth and species that actually inhabit that old growth, then of course they are free to adopt any level of old growth they wish to in their plan, since they are protecting only *trees* of a certain size, not species that specialize in particular (complex) habitats. That disconnect between science and standards in and of itself renders the 10% old growth standard arbitrary, since it is chosen at the whim of the agency without regard to *any* science (none is cited in the Clean-up Amendment EA), and without any rational connection to NFMA's mandate to provide for a diversity of plants *and* animals - not just plants. 16 U.S.C. §1604(g)(3)

(B) (“provide for diversity of plant and animal communities based on the suitability and capability of the specific land area...”).

Before leaving the issue of old growth, Plaintiffs note that the defendants correctly point out that ¶¶ 61-63 of Dr. Johnson’s Third Declaration says nothing about moose and old growth. The correct citation is to ¶¶ 74-85. Beyond this correction, federal defendants arguments concerning moose are unresponsive. They clearly did not consider the best science on the potential cumulative impacts of forest thinning on moose, and their brief indicates they are rather “confused” on this point.

## **II. Elk Habitat Security and Displacement**

According to the Forest Service arguments in this case, a trophy elk standing in the middle of a clearcut located one half mile from a road in the Crazy Mountains is “secure” from predation by elk hunters - even if that clearcut extends all the way to the road. This is plausible according to the Forest Service because “hiding cover is not a determining factor in elk security.” Fed.Brf., p. 23. Apparently, roads are the only determining factor in elk security now.

This argument is based on analysis in an internally generated, unpublished paper authored by a collaborative group of five employees from the Forest Service and Montana Fish, Wildlife & Parks. The report from this group is represented by the Forest Service here as “best science” - *even though* it has never been published, let alone subjected to peer-review in a scientific journal. It is, at best, an internally-generated literature review, a non-NEPA document to which the EA for the Clean-up

Amendment has clearly been “tiered” - since that is where the rationale for the EA changes is found, and that is what the Forest Service now relies upon to support its decision (Plaintiff counts at least 15 references to this document in the Forest Service’s brief).

The regulations implementing NEPA expressly allow tiering analysis in an environmental assessment to other NEPA documents, *but not* to documents that have not gone through the public review requirements of NEPA. See: 40 C.F.R. § 1508.28:

*Tiering* refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared. *Tiering is appropriate when the sequence of statements or analyses is:*

**(a)** From a program, plan, or policy environmental impact statement to a program, plan, or policy statement or analysis of lesser scope or to a site-specific statement or analysis.

**(b)** From an environmental impact statement on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation)...

(emph. added). By necessary implication, and as the Circuit Court holds, “tiering to a document that has not itself been subject to NEPA review is not permitted, for it circumvents the purpose of NEPA.” *Kern v. Bureau of Land Management*, 284 F.3d 1062 (9th Cir. 2002). That would seem to be especially the case where, as here, the



non-NEPA document contravenes the scientific conclusions set forth in an EIS.

At the time the Gallatin forest plan was adopted, the best available science for elk habitat security was the fifteen-year study incorporated into the EIS - *Lyon et al.* (1985). To return this discussion to statements of record, rather than suppositions and unscientific inferences offered in a legal brief, the Gallatin's own Wildlife Biologist pointed out in discussing the Circuit Court's ruling in *Hapner v. Tidwell*, 621 F.3d 1239 (9th Cir. 2010) that:

At the time Forest Plans were being prepared, there had been many studies completed looking at big game responses to what had been a fairly aggressive timber harvest era on National Forests in Region 1. The recommendations from those studies were embodied in a publication often referred to in Forest Plans (*Coordinating Elk and Timber Management*, 1985). On page 9 of that publication, it speaks to "good cover" as being ***two-thirds of total area***; this may be the background for the Gallatin's two-thirds standard.

(emph. added) ARCU-3516. Is that not clear enough? As Plaintiffs pointed out, and the Forest Service somehow avoided responding to, this qualified statement from Canfield finds confirmation in the Gallatin Plan EIS at VI-61: "The Guidelines of the Montana Cooperative Elk-Logging Study were utilized in the development of Forest Plan management standards." The implication is rather inescapable: the two-thirds hiding cover standard in the Gallatin's forest plan was intended to be applied to the total area under consideration. It was not, as the Forest Service now argues, somehow divorced from any "spatial frame of reference." Fed.Brff., at p. 16. "Total area" is itself a spatial frame of reference.

In support of its argument that hiding cover no longer has anything to do with elk security, the Forest Service notes that the collaborative group which authored the unpublished internal review to which the EA is tiered cited to the best science, or *Hillis et al.* (1991). Therefore, it must be true that *Hillis et al.* says that “hiding cover is not a determining factor in elk security,” as the Forest Service argues based on the Collaborative Recommendations. But what *Hillis et al.* actually says, beginning right in the abstract for that paper, is that elk hunter opportunities may be increased by “providing security areas for elk during the hunting season” and then defining security areas as “non-linear blocks of hiding cover” equal to or greater than 250 acres, and located at least a half-mile from a road. ARSS-5796. That’s 250 acre blocks of *hiding cover*. Apparently, according to the best science at least, elk security *really does* have some close relation to hiding cover, and maybe that trophy elk standing in the middle of a clearcut reserve is not feeling so secure after all. Indeed, *Hillis et al.* goes on to note that conditions favorable for elk security include *dense cover* in forest communities that are “largely unfragmented.” ARSS-5797. In fact, “[w]hen cover is poor and terrain is gentle, it may require a distance [greater than] one half mile from open roads before security is effective.” *Id.* But the Forest Service in Smith Shields included *any and all* lands greater than one half mile from any roads without regard to hiding cover quality (or even existence) in calculating elk security, which only makes sense in light of the fact that they now disavow any connection between hiding cover and elk security. All that is required is “land.”

Fed.Brf., at p. 23.

This disconnect from best science reaches absurd levels when one considers the Forest Service assertion that “37% of the Elk Analysis Unit is secure habitat.” Ibid., p. 43. This happens to be a higher percentage than hiding cover in the same area, which is only 33% of the EAU, Ibid., p. 21, and which is certainly not all located more than one half mile from a road. Compare that over-simplistic accounting methodology to this statement from *Hillis et al.*: “Variables to consider: Effective security areas may consist of several different cover-types if the block is relatively unfragmented.” ARSS-5797. It sure sounds like *Hillis et al.* is referring to forested habitat, as opposed to grasslands.

It is simply not possible as a matter of logic to understand how the Forest Service has strayed so far from what it acknowledges as “best science” for purposes of elk security that it is now forced to pretend that there is no connection between hiding cover and elk security. However, it does provide this Court with some insight into the elk displacement issue.

As noted, *Hillis et al.* is quite clear that the more un-fragmented hiding cover that exists in secure areas on the landscape, the more secure an elk will feel and the greater hunter opportunity becomes to actually bag an elk. Supra. While the Forest Service seems to argue that Plaintiffs have a secret agenda to kill elk (Fed.Brf., p. 24), that happens to be the whole point of Montana FWP’s management objectives and population targets. And once again, the Forest

Service indicates that it simply does not understand, or is unwilling to acknowledge, the concern over displacement of elk from public lands during hunting season by pretending that the inability of FWP to manage the population size is not only not a problem, but “empirical validation” of their dissociation of hiding cover from elk security! Fed.Brf., p. 20.

Similarly, the Forest Service argues that the displacement problem may simply be a matter of elk moving early to winter range on private lands. *Ibid.*, p. 40. The citation for this statement, however, is a 2011 document where the Forest Service biologist notes that elk populations have doubled since 2001. ARSS-12792. The biologist then notes that *before* the population explosion (1999-2001), “38% of the bull harvest occurred during the first week of the [hunting] season... an indicator of high habitat quality and security.” *Id.* So the actual implication is not that elk simply wander off to winter range early, but rather that habitat quality and security have somehow suffered over the course of that intervening decade, resulting in a doubling of the population (and a problem for MFWP). Again, that implication is supported by *Hillis et al.*, which the Forest Service still acknowledges as best science on elk security in spite of the disconnect from what *Hillis et al.* actually says.

As for *Lyon et al.* (1985), the Forest Service asserts that this 15-year study that formed the basis of the 2/3 “good cover” standard in the forest plan “merely found that elk hiding cover, *where it exists*, should contain a ratio of 66% to

33%, cover to open.” (emph. added) Fed. Brf., p. 13. The Court is encouraged to read that assertion again. Hiding cover - “where it exists” - includes non-hiding cover. If it is not hiding cover, than how is it determined to be existing hiding cover? *Non-hiding cover is existing hiding cover?*

Perhaps the Court can now appreciate Plaintiffs’ confusion over the Forest Service’s revisionist interpretation of its own science. “Let A include 33% non-A.” The Court should not defer to this “alternate logic.” The Forest Service pretends that open land is hiding cover, and that an elk can feel secure in a clearcut, so surely there must be *another* explanation why elk are abandoning the forest *en masse* during hunting season, and the population has more than doubled in the last decade, than the fact that the elk analysis unit in question has only 33%, or “poor,” hiding cover. And whatever that explanation is, presumably, has no relation to cumulative impacts from reductions in hiding cover over time, so there is no need for an EA. No clear and “convincing statement of reasons” why the potential effects of further reductions in hiding cover on elk displacement are “insignificant” can be found in the record for this case, because the Forest Service refused to address the issue raised by NEC for fear it would prevent them from availing themselves of the expediency of categorically excluding more logging on top of the Smith Creek project from further NEPA analysis. *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1211 (9th Cir. 1998).

Of course, *Lyon et al.* does say that “hiding cover *alone*... is not necessarily secure” since “both topography and size of [the] undisturbed area can contribute to increased security” (emph. added) ARSS-7133 (p. 43).<sup>5</sup> As with *Hillis et al.*, supra., however, it is clear even from this statement that hiding cover is at least the *starting point* for determining elk security, contrary to the dissociated views expressed by the Forest Service in their brief.

What *Lyon et al.* actually found and reported in studying the effects of logging and roads on elk habitat is that road closures are not necessarily required during hunting season to protect elk where “escape cover was adequate and well distributed (at least two-thirds cover to one-third open)” — thus supporting the conclusion therein that “good” cover is at least “two-thirds of the total area.” ARSS-7097-7099. As the Forest Plan EIS and the Forest Service biologist acknowledged in *Canfield* (2011), this was the basis of the forest plan selection of two-thirds of total area as the protective standard for elk in this, the prime elk hunting grounds in Montana, if not the world. And it only stands to reason that is was intended to be applied within an Elk Analysis Unit, whether or not the Forest Service ever actually honored that intent, because the EAUs are drawn according to actual elk herd usage *for analytical purposes*, such as analyzing security.

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<sup>5</sup> Note: the Bates page numbers are not legible in the record, and thus the reference is to the page number in the original paper.

The Forest Service also argues that it was never the intent to include private lands located within an EAU in determining elk security. But once again, regardless of what the Collaborative Recommendations provide, the science that they acknowledge as the best science asserts just the opposite: “Analysis units should not be adjusted for land ownership; instead, they should reflect the cumulative habitat conditions perceived by elk.” *Hillis et al.*, ARSS-5797. As this Court concluded when it last considered the issue, “[g]iven this dictate from its own scientists, the Forest Service's decision to exclude private lands was unexplained and so is arbitrary and capricious...” *NEC v. Weldon*, 848 F.Supp.2d 1207, 1218 (2012). Why the Gallatin should be excluded from this logical conclusion remains unclear. One of the primary purposes of delineating an Elk Analysis Unit is to analyze security conditions, and the intent of the two-thirds hiding cover requirement in the Gallatin forest plan was to analyze security of the total area in that analysis unit. That is not to infer that the standard would then require providing two-thirds of the total area as hiding cover, as the Forest Service is correct in asserting that it has no control over the private lands included in an EAU. But it certainly is required to consider the conditions of those lands, and apply the two-thirds standard to the national forest lands within the EAU. Presently, only 58% of the Gallatin within the EAU provides hiding cover for elk - under the 66% standard - and thus, no further reductions should be approved until the area recovers. *Hapner v. Tidwell*, *supra.*, at 1250.

### **III. Plaintiffs Exhausted Their Administrative Remedies**

While arguments in support of issues raised in administrative processes necessarily change during litigation, Plaintiffs certainly raised all the issues they have included in their claims for relief at appropriate junctures in the administrative processes for the challenged decisions. Defendants assert that “Plaintiffs failed to administratively exhaust certain claims they now raise specific to big game hiding cover standard 6(a)(5).” Fed.Brf., p. 9. The issue was sufficiently raised in the administrative process to afford the Forest Service the opportunity to address it by preparing a more thorough EIS.

NEC complained that the “[e]limination of the requirement to maintain 2/3 hiding cover associated with key habitat components over time, as well as eliminating the requirement to map hiding cover, certainly will not improve the management or analysis of timber harvest impacts on big game.” ARCU-911. It must be remembered at that time the Forest Service had already indicated that it understood the 2/3 hiding cover standard to apply to total area. ARCU-3516. So objecting to removal of this standard in order “to simply eliminate troublesome elk habitat standards that interfere with timber harvest” (ARCU-911) was adequate to put the agency on notice of the claims raised here. Then, in their objections, Plaintiffs noted that:

The problem that exists with the current Forest Plan definition of hiding cover was never addressed, even though it is the accepted



definition in the scientific literature... If this standard is going to be corrected, the rationale for the correction needs to be fully supported by science. Existing science is in direct conflict with this proposed change.

ARCU-5329, 5330. In this case, all that Plaintiffs have done is to go into greater detail, for the Court's benefit, on the scientific issues raised in the objection. As the Forest Service is the expert, it is not necessary to explain the science to them in the administrative process. Exhaustion of remedies is a doctrine that addresses whether or not issues are raised, as opposed to detailed arguments specific to those issues.

As the Forest Service never contradicted the interpretation of the hiding cover standard from their biologist set forth in *Canfield* (2011), supra., the public was certainly not under some obligation to anticipate the contradictory assertions they now raise in litigation. After all, they insisted all along that they were not changing the substance of the standards in the Clean-up Amendment, and thus no EIS was needed. Only when they began to implement those changes, in the project at issue here, did it become clear that they were, in fact, changing the substance of the standards to remove protections for wildlife that had been in place since the start of the forest plan.

For the same reason, there was no occasion to raise the elk displacement issue at the time the forest plan amendments were proposed, as that is a more site-specific concern that was adequately raised and supported in scoping

comments for the challenged project. It is a cumulative effects issue tethered to the proposal to further reduce hiding cover in the EAU at issue in Smith Shields, and not a forest plan issue. While it certainly should be an issue in any forest plan revision process, it is not addressed by the current forest plan for the Gallatin, and the Forest Service is estopped from arguing that Plaintiffs should have raised it by their own constant assertions that they were only making non-substantive corrections to existing standards in the Clean-up Amendment. By way of illustration, when NEC asked them to consider an alternative to the proposed change in the old growth standard that would incorporate best science on adequate levels of habitat, the Forest Service responded by noting that was outside the scope of the proposal.

In any case, the claim raised in this case is not that the Clean-up Amendment does or does not implicate the issue with elk displacement. Rather, it is that reducing hiding cover and security in the Smith Shields proposal raises the issue of cumulative impacts to elk in the form of displacement, and thus precludes the agency from relying on a Categorical Exclusion. See, e.g., Fed.Brff., p. 1 (“A federal agency may promulgate a categorical exclusion from NEPA review for actions ‘which do not individually or cumulatively have a significant effect on the human environment.’ 40 C.F.R. 1508.4.”); Complaint, Third Claim for Relief, ¶¶ 4, 5.

#### **IV. Lynx Connectivity**

The federal defendants contend in their response brief that the findings on lynx connectivity set forth in *Squires* (2013) is limited to core habitat areas because that is where the study was situated. Fed.Brf., pp. 37-38. It is difficult to comprehend how Squires could have studied lynx utilization of various landscapes, and reached the conclusions he did on connectivity, by situating his study anywhere other than areas inhabited by lynx. In addition, the paper is quite clear at the outset that it is concerned with “[p]reserving connectivity throughout the northern Rocky Mountains...” and “the contiguous U.S.,” and addresses maintenance of both “short and long-distance connectivity.”

ARSS-10413. So the nonsensical dismissal of new science by the agencies here is indicative of the problem with placing over 7,700 square miles of national forest land between Yellowstone and Canada on the chopping block with no standards for safeguarding connectivity along designated migration corridors, like that which passes through the project area. While federal defendants note that “the Project would impact only a small amount of lynx habitat,” Fed.Brf., p. 36, there is no cumulative effects analysis anywhere in the record for either the Smith Shields Project or the Chief’s designation of similarly situated forest lands.

Defendants note that “Plaintiffs cite Squires to support their statement that ‘dense forests are those with a canopy cover of 60% or greater,’ Pls.’ Br. 10, but

the cited page does not support that statement.” The cited page is AR010416 (ARSS-10416). Table 1 on that page, “Variables used to quantify resource selection and movement behavior of Canada lynx in response to environmental heterogeneity,” characterizes “moderate” canopy closure as falling within a range of 25-60%, and “high” canopy closure as that which exceeds 60%. This supports Plaintiffs statement that dense forests are those with a canopy cover of 60% or greater, compared to the 40% protective standard for wildlife applied in the Smith Shields project.

## **V. Farm Bill Designation of Lands Eligible for NEPA Exclusion**

The Defendants claim that the challenged landscape-scale designation “says nothing about the projects that will be conducted within those areas,” citing a district court decision from California that is presently on appeal in the Circuit Court. Fed.Brff., p. 6. Actually, it says quite a lot. It says logging can go forward anywhere in the nearly five million acres of national forest lands designated without the hard look otherwise required under NEPA in the form of an EA or EIS. That is tantamount to a withdrawal of such lands from public purview as to potential impacts to the environment that may result from such logging - including undisclosed old-growth habitat depletion, if this case is any indicator. To assert that the designation is not a final agency action under NEPA because “it is simply a condition precedent to projects being eligible for the §603 categorical exclusion” is like saying a forest plan does not require an EIS

or even an EA when it is adopted or revised because it is simply a condition precedent to projects being considered in the future. While it is true that a forest plan may not be challenged under NFMA until it is implemented for that very reason, *Ohio Forestry v. Sierra Club*, 118 S.Ct. 1665 (1998), the same is certainly not true under NEPA.

The problem with the Forest Service arguments here is that they readily acknowledge that “A federal agency may promulgate a categorical exclusion from NEPA review for actions ‘which do not individually or cumulatively have a significant effect on the human environment. 40 C.F.R. 1508.4,” and yet they can point to no place in the record where the potential cumulative impacts of widespread forest thinning and clearcuts throughout the range of the Canada lynx’s migration corridors between Yellowstone and Canada has been considered, let alone determined to be insignificant.

There is no question that NEPA applies to “[i]ndirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. §1508.8. Moreover, “environmental consequences” under NEPA include “[i]ndirect effects and their significance (§ 1508.8),” independent of direct effects. 40 C.F.R. §1502.16(b).

As to the California District Court’s decision, it is true that Congress clearly intended to provide for an expedited review and designation of “[one] or more landscape-scale areas, such as subwatersheds (sixth-level hydrologic

units, according to the System of Hydrologic Unit Codes of the United States Geological Survey), in at least [one] national forest in each State that is experiencing an insect or disease epidemic” as initial areas for the program, a provision for a kind of demonstration project in each state. Plaintiffs agree that no NEPA could have been reasonably been intended for such designations, as they were to happen within a 60-day window from passage of the bill, and as there was no discretion provided to the Chief in those instances. However, as to the much more sweeping, programmatic designations outside of that 60-day window, which clearly do implicate discretion on the part of the agency, there is nothing so onerous about an EA that the Chief could not have solicited input from the owners of these public lands before designating millions of acres of national forests for exclusion from more considered environmental analysis under NEPA.

Ninth Circuit caselaw clearly applies NEPA to agency actions like the one in this case that do not have any immediate effects on the ground. *California Wilderness Coal. v. U.S. Dep’t of Energy*, 631 F.3d 1072, 1098 (9th Cir. 2011) (“Our precedent . . . provides that agency action may constitute a ‘major Federal action’ even though the program does not direct any immediate ground-breaking activity.”) As in the situation presented to the Court in *California Wilderness Coalition*, the landscape designation of nearly 8,000 square miles of national forest lands along the front range of the Rocky Mountains in Montana

“could have great historic and regional consequences that significantly affect the environment.” *Id.*, at 1098. The potential, unexamined impacts on lynx corridors is just such a consequence, given the decision by the Forest Service not to include any protective standards for connectivity in the Lynx Conservation forest plan amendments.

Similarly, in *N. Alaska Env'tl. Ctr v. Kempthorne*, an EIS was prepared for agency action making the entire Northwest Petroleum Reserve available for oil and gas leasing despite the lack of “site specific analysis for particular locations where drilling might occur.” 457 F.3d 969, 973 (9th Cir. 2006). As to the speculative nature of potential impacts, the Ninth Circuit rejected a similar argument in *California Wilderness Coalition*:

[T]he intent and impact of the NIETCs support the conclusion that they constitute major Federal action. They create ‘National Interest’ corridors to address national concerns. The NIETCs cover over a 100 million acres in ten States. Moreover, they create new federal rights, including the power of eminent domain, that are intended to, and do, curtail rights traditionally held by the states and local governments.

631 F.3d at 1101. The same is true of the Farm Bill designations, which also encompass millions of acres of national forest lands in other Western states (e.g., 5.3 million before the Court in the case cited by federal defendants), though Plaintiffs are limiting their challenge to the Montana designation.

In short, it is immaterial that the treatment area designations do not authorize or require any on the ground actions. As in *California Wilderness*

*Coal.*, here too the agency’s “conclusory statement does not allow [the Court] to determine whether [the agency] took a ‘hard look’ at the potential environmental consequences.” *Id.* at 1098. Thus, while the effects of the designation “may be uncertain and difficult to quantify, the potential consequences of such effects are significant enough to undermine [the agency’s] conclusory determination that no EA need be prepared.” *Id.*

A “court owes no deference to the [agency’s] interpretation of NEPA [or its implementing regulations] . . . because NEPA is addressed to all federal agencies and Congress did not entrust administration of NEPA to [the agency] alone.” *Alaska Wilderness League v. Jewell*, 811 F.3d 1111, 1117, n.2 (9th Cir. 2015) (quoting *Grand Canyon Trust v. Fed. Aviation Admin.*, 290 F.3d 339, 342 (D.C. Cir. 2002)). “When an agency decides to proceed with an action in the absence of an EA or EIS, the agency must adequately explain its decision.” *Sierra Club v. Bosworth*, 510 F.3d 1016, 1026 (9th Cir. 2007). Just as in that case, so here:

The Forest Service must document that the action to be undertaken is insignificant... The Forest Service did not do this. It failed to consider adequately the unique characteristics of the applicable geographic areas, the degree to which effects on the quality of the environment were controversial or the risks were unknown, the degree to which the CEs might establish a precedent for future actions with significant effects or represented a decision in principle about future considerations, the degree to which the actions might affect endangered species, and whether there existed cumulative impacts from other related actions.



*Ibid.*, at 1027. The Court therefore found that “the Forest Service failed to demonstrate that it made a ‘reasoned decision,’” *id.*, and that is true here as well. While it may be true that “effects may be difficult to measure and may be determined ultimately to be too imprecise to influence the Designation, [] this is precisely the type of determination that only can be intelligently made after the preparation of at least an EA.” (emphasis added) *California Wilderness Coal.*, at 1103.

## **VI. Region One Soils Standards**

The Forest Service attempts to evade legal liability for failing to comply with the Region One Soils Standards by noting that they are not a part of the Gallatin Forest Plan, which is true. Here is what the Forest Service’s soil scientist says about those standards in the record of decision, however:

### **Soil and Land Productivity**

There is no direct reference to a coarse woody debris standard specific to soils and/or land productivity in the Forest Plan. This concept is deeply ingrained, however, in the ideas of sustained yield and maintaining land productivity that have been codified by key federal legislation which today provide the foundation on how the Forest Service is to manage National Forest lands. Primary applicable laws include the Multiple-Use, Sustained Yield Act of 1960, the National Environmental Policy Act (NEPA) of 1969, Forest and Range Renewable Resources Act (RPA) of 1974; and the National Forest Management Act (NFMA) of 1976. Maintaining a certain minimum level of CWD in contact with the ground surface in forested areas is an important part of managing land productivity in areas that are harvested for timber. It follows that you cannot have sustained yields without maintaining soil and land productivity...

## **Forest Plan Direction**

The above proposal fits with the direction that is provided in the Forest Plan for the Gallatin National Forest with respect to timber production and soils: Goal #12 – Provide a sustained yield of timber products and improve the productivity of timber growing lands; the Water and Soils Objective to apply of best management practices to watersheds; Standard 8.b.1.c. – to maintain an adequate nutrient pool for long term site productivity...; Standard 10.2 – Best management practices (BMP's) will be used on all Forest watersheds in the planning and implementation of project activities; and Standard 10.8 “All management practices will be designed or modified as necessary to maintain land productivity and protect beneficial uses.”

(emph. added) ARSS-2128, 2129. Presumably, all of the laws cited still apply.

## **VII. Conclusion**

Plaintiffs' arguments in this case are tiered. In other words, if the Court agrees that the Clean-up Amendments resulted in substantive changes to the Gallatin National Forest Plan, either because it results in less protections for old-growth habitat and the species that depend on that habitat, or because it removed existing protections for big game, or if the Court were to determine the EA inadequate for any other reasons (such as failure to support the decision with reference to the science implicated), then there is no reason to reach the other issues. Similarly, if the Court were to agree that the Chief's designation of nearly five million acres of forests in need of treatment without the need for careful NEPA analysis was not itself in compliance with NEPA, then there is no reason to reach the issues specific to Smith Shields. In any case, it is also clear that the Smith Shields project is not consistent with NEPA, the Gallatin Forest Plan, the ESA or the HFRA for any or all of the reasons stated, and Plaintiffs' respectfully request that the decision be set

aside, along with the Gallatin Clean-up Amendment.

Respectfully submitted this 27th day of October, 2017,

/s/ Thomas J. Woodbury

**Certificate of Compliance with L.R. 7.1**

The undersigned attests that the foregoing consolidate response and reply brief is in compliance with Local Rule 7.1, in that it has 8,590 words.

/s/ Thomas J. Woodbury

## **APPENDIX:**

### **MOOSE CREEK OLD GROWTH**

#### **RETENTION ANALYSIS**

**(excerpted from project record supplied to  
Plaintiffs by Defendant U.S. Forest Service)**

The Forest Plan has an Old Growth Forest Objective “A minimum of 5 percent of the commercial forest land within a timber compartment should be maintained in an old growth forest condition. A minimum stand size of 20 acres is recommended for old growth management.” A minimum stand size is recommended because in very small patch sizes, old growth cannot provide the environment needed for many species to function. Edge effect can effectively negate the benefit of having a larger contiguous microclimate of old growth.

We used GIS to delineate contiguous tracts of Old Growth (OG) at least 20 acres in size- OG that was identified in field surveys during summers of 2015 and 2016. We also identified additional OG tracts that are nearby these  $\geq 20$  acre tracts, and that are connected to the larger tracts by mature forest that was identified as Potential Old Growth (POG) (POG being tracts that will likely qualify as OG within 50 years). OG and POG were identified using parameters published in *Old Growth Forest Types of the Northern Region*, Green et al. 1992, errata 2011 Appendix 3. A summary of these OG tracts can be found at <file:///O:\NFS\LewisClark\Project\MooseCreekVegetation\Documents\Specialist\Wildlife\OGandLynx\MooseVegOGanalysis.xlsx>. The GIS map used for this analysis can be found at T:\FS\NFS\LewisClark\Project\MooseCreekVegetation\GIS\Workspace\GMunger\MooseVegOGanalysis.mxd.

There are 5,414 acres of commercial timber in Timber Compartment 709 and 21,291 acres of commercial timber in Timber Compartment 711. Approximately 8,600 acres have been surveyed to determine old growth forest condition in these timber compartments. Extrapolating from the number of acres of old growth found per acre surveyed, there are likely 2328 acres of old growth that have not been identified in Compartments 709 and 711.

	Acres of Commercial Timber	5% of Commercial Timber Acres	Total Acres of Old Growth Found	Total Acres of Old Growth Found in Blocks of $\geq 20$ Acres	Additional OG acres linked with $\geq 20$ acre blocks via mature habitat
Compartment 711	21,291	1,065	920	604.6	51.7
Compartment 709	5,414	271	186	25.4	

The current capacity of this project area to recruit and retain abundant and high quality old growth is strongly limited. The MooseVeg project area is largely composed of lodgepole pine-dominated forest. Of the 55 timber stands comprising our  $\geq 20$  acre OG tracts, 45 contained only lodgepole pine OG, 4 contained lodgepole pine and subalpine fir OG, 4 lodgepole pine and Englemann spruce OG, 1 lodgepole pine and whitebark pine OG, and 1 contained only Englemann spruce OG. Recent widespread, intensive mountain pine beetle epidemic has dramatically reduced the extent of lodgepole pine OG in the MooseVeg project area, particularly since the beetle attacks primarily the largest diameter trees in an outbreak area.

Consequently, many previously OG lodgepole pine stands in the project area are now largely composed of widely-spaced, stunted, small-diameter lodgepole pines, often with an understory component of previously suppressed shade-tolerant seedlings and saplings such as Douglas-fir, subalpine fir, and Englemann spruce. Most of these stands are many decades, perhaps centuries from recruiting into OG status again. In addition, anecdotal observations from surveyors suggest that a) some, perhaps most, of the remaining lodgepole pine OG in the project area retains densities of OG-qualifying-sized trees that border on the low end in terms of OG-qualifying densities (a forest tract qualifies as OG based on species-specific parameters for tree age, size, and density), and b) some of the lodgepole pine OG in the project area that survived the mountain pine beetle outbreak is nevertheless currently of poor quality/health.

Given this situation, we took great care to avoid proposing activities that might diminish the existing OG resource in the MooseVeg project area. Although we did not survey every timber stand contained within the MooseVeg project boundary, we did survey wherever project-related management activities were proposed. Indeed, proposed activity unit boundaries were redrawn on multiple occasions specifically to avoid diminishing the OG resource. In short, we may not know where every 20+ acre tract of OG is within the project area boundary, but we certainly know where it isn't.

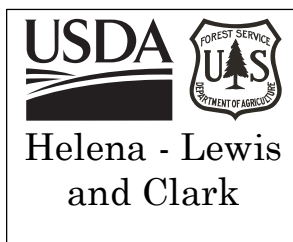
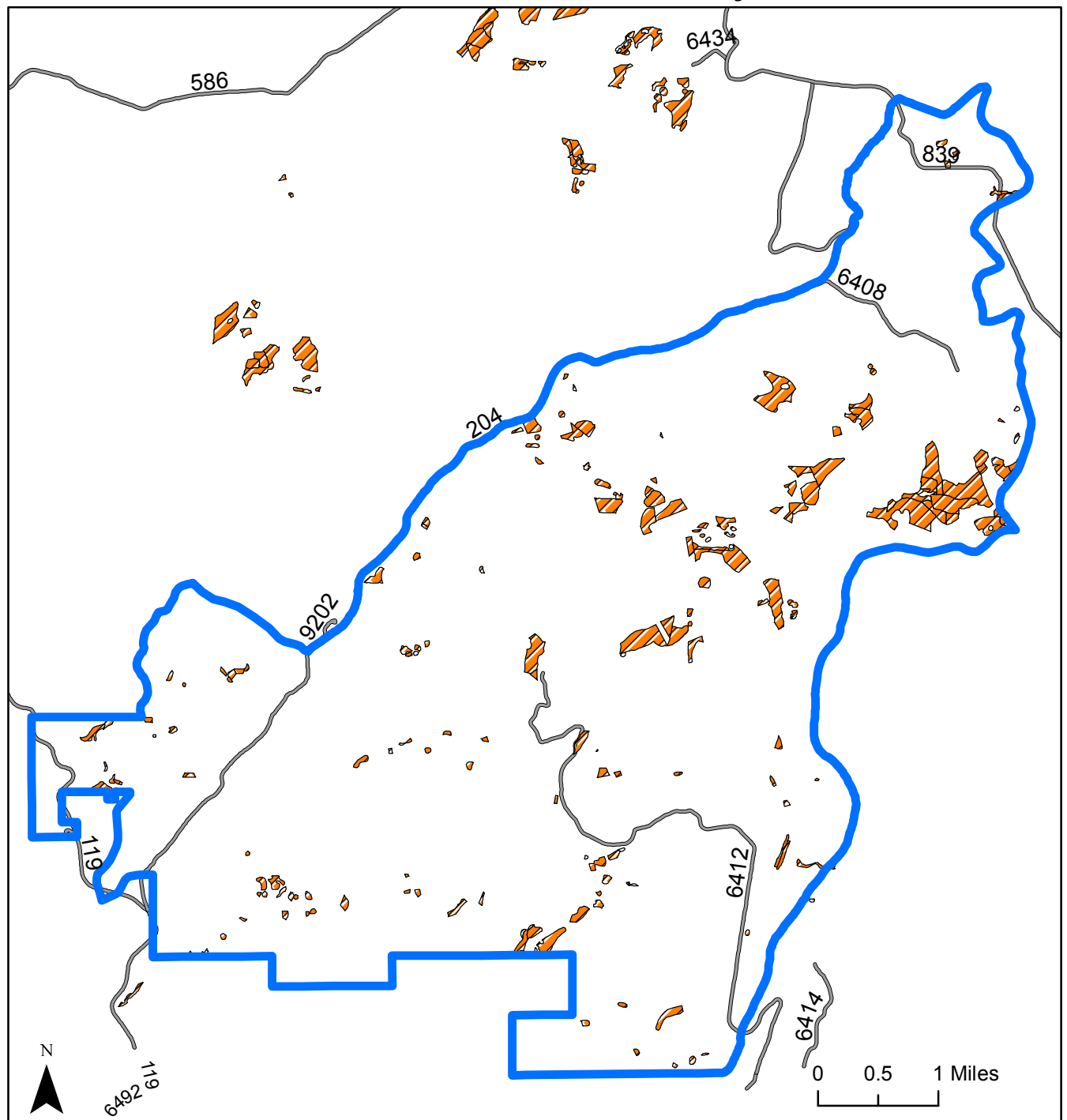
Unit Number	Wildlife Notes
1	POG is of poor quality, likely will not develop into OG due to extensive disease according to T. Murphy, silviculturist, there are 3 small (less than 2.5 acres each) patches of OG separated by distances of 200 and 500 feet, therefore nothing to designate as a functioning patch of OG, not lynx habitat, no wildlife changes to this unit
2	Not OG, not lynx, no wildlife changes to this unit
3	Stands 71106054 and 71106076 have adjoining OG for a total of 21 acres, and stand 71106054 is also lynx habitat, wildlife drops this from unit 3, remainder of unit has PICO POG which is of poor quality
4	Stands 71103116 and 114 each have about 12 acres of OG, and stand 117 has about 10 acres OG, plus 71103091 has 2.4 acres OG that adjoin for a total of at least 37 acres of OG; there may be more OG because 116 and 117 were only partially surveyed based on the Unit boundary. Additionally, there is lynx habitat in this unit in 70003091, 71103120, and 71103117 for a total of at least 14 acres. OG and lynx habitat were removed.
5	Some aspen found in Unit 5 where it had been previously logged. Some patches of lynx habitat, but not contiguous into a 5 acre patch. Adjacent stands were reviewed for lynx habitat as well to see if lynx habitat would adjoin the lynx identified in Unit 5 to make a larger patch. Stand 71101071 to the south could potentially be a post and pole unit with diameters less than or equal to 5" DBH and stand 71101041 is stem exclusion where it connects to 71101013. There is no OG in the Unit. No wldlf changes to this unit
6	No OG, not lynx, no wldlf changes to this unit

7	71103090 was only partially surveyed because of the Unit boundary, but it is very likely that the OG continues into the other portion of 03090, and also into 71103029, therefore this 14 acre piece plus a 1.6 acre piece in 71103066 will be reserved for old growth. Additionally a 8.7 and a 6.8 piece of OG out of 71103067 and 71103084 were reserved as OG as well. Other patches of OG in this unit are isolated and less than 10 acres. Just a few patches of lynx habitat, not reserved.
8	Two small patches of OG, no lynx, no wldlf changes
9	Drop entire unit due to lynx habitat and OG. 71107111 is 5.9 acres OG, 109 is 14.3 ac OG, 107 is 6.9 ac OG for 27 ac OG
10	11 acres of lynx habitat in middle of unit, dropped from unit
11	71106045 is 18 acres of OG adjacent to 71106027 which has 20 acres of OG in 2 pieces separated by POG, collected together for an OG reserve of 38 acres. There are another 3.8 acres and 9 acres of OG that are almost connected that should be reserved. Recommend to drop entire unit.
12	Almost entire unit is lynx habitat and OG is 24 acres. Recommend to drop entire unit
13	A large portion of this unit is OG which is adjacent to other OG. 165 acres which is near former Unit 9 of 27 ac OG and former Unit 12 which is 24 acres OG
14	Has some POG which isn't remarkable in the general area, no lynx habitat, no wldlf changes to this unit
15	Need to discuss this unit with Tanya
16	Some lynx habitat to exclude, in general no changes.
17	There is lynx habitat to exclude, 2 small pieces of OG which will not be retained, not connected, less than 3 acres each
18	Removed lynx habitat
19	No changes, less than 2 acres of OG
20	No changes, some POG
21	Most of unit is lynx habitat, dropping entire unit
22	Lynx habitat was removed, so other changes
23	Removed lynx habitat
24	Removed lynx habitat, no OG to save.
25	This unit is at least half lynx habitat, removed.
26	Almost entire unit is lynx, unit dropped.
27	Half lynx habitat removed.
28-34	No lynx habitat, no OG habitat, no wldlf changes

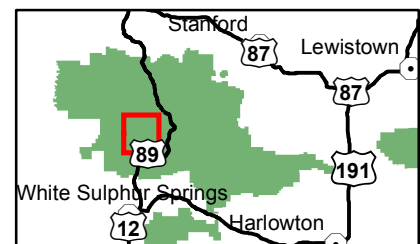
35	Lynx habitat removed, no OG
36	Lynx habitat removed, no OG
38	Lynx habitat to remove, no OG to designate
39	Lynx habitat removed
40	No lynx habitat, no OG habitat, no wldlf changes
41	Lynx habitat removed
43	Lynx habitat removed
44	Drop entire unit for lynx habitat
45-46	Unit 45 has some patches of OG amounting to no more than 5 acres, no changes, does not look from aerial imagery that there is adjacent old growth



# Old Growth in Moose Creek Project Area



- Project Boundary
- Old-Growth



The Forest Service uses the most current and complete data available. GIS data and product accuracy may vary. They may be: developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation, incomplete while being created or revised, etc. Using GIS products for purposes other than those for which they were created, may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace, GIS products without notification. By: tarynrclark - 4/5/2017 - \\ds.fs.fed.us\IEFS\FS\NFS\LewisClark\Project\MooseCreekVegetation\GIS\Workspace\TClark\OGmap\_MooseCreekVeg\_withTreatment Units.mxd\OGmap\_MooseCreekVeg\_withTreatment Units